

DOCUMENT RESUME

ED 100 696

88

SE 018 594

TITLE Physical Education 7-12, Environmental Education Guide.

INSTITUTION Project I-C-E, Green Bay, Wis.

SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.; Wisconsin State Dept. of Public Instruction, Madison.

PUB DATE [74]

NOTE 58p.

EDRS PRICE MF-\$0.75 HC-\$3.15 PLUS POSTAGE

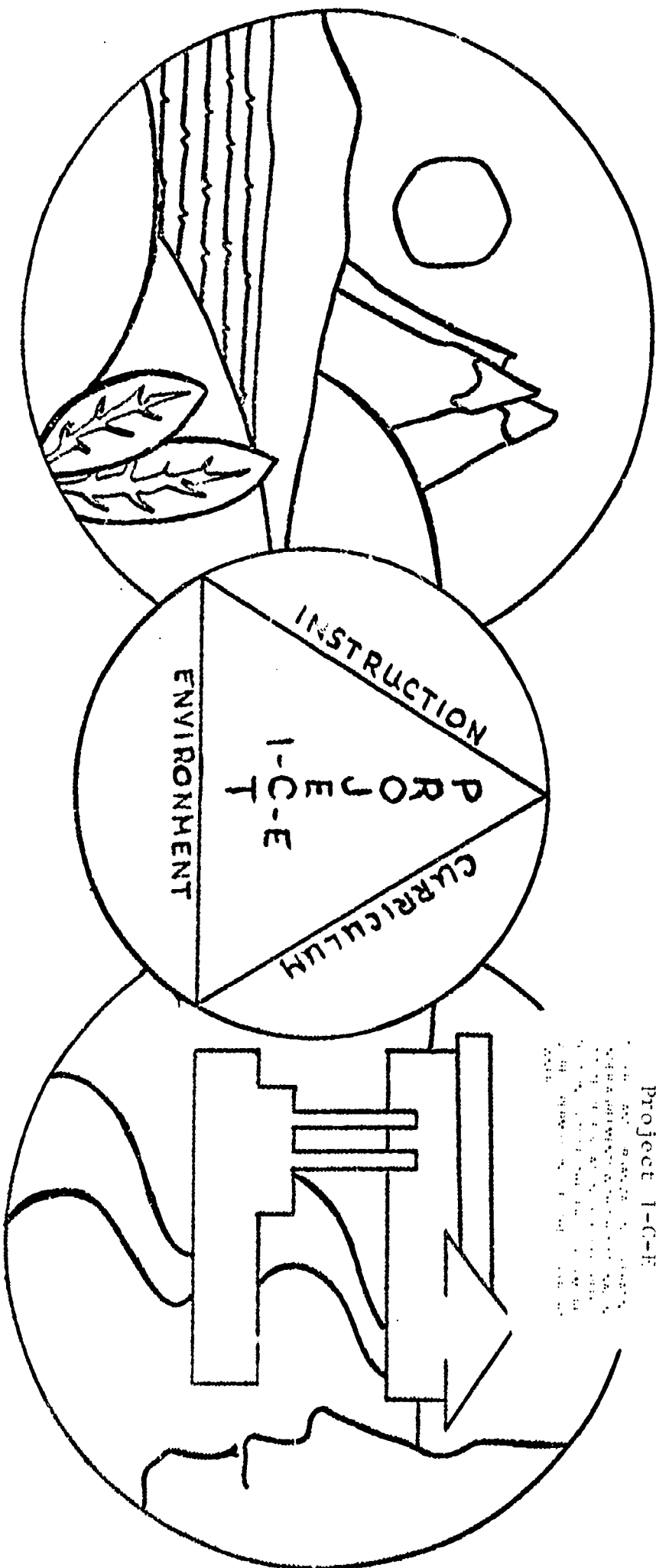
DESCRIPTORS Conservation Education; *Environmental Education; Instructional Materials; Interdisciplinary Approach; Learning Activities; Natural Resources; Outdoor Education; *Physical Education; Science Education; *Secondary Education; *Teaching Guides

IDENTIFIERS Elementary Secondary Education Act Title III; ESEA Title III; Instruction Curriculum Environment; *Project I C E

ABSTRACT

This physical education guide, for use in grades 7-12, is one of a series of guides, K-12, that were developed by teachers to help introduce environmental education into the total curriculum. The guides are supplementary in design, containing a series of episodes (minilessons) that bridge the gap between physical education and the environment, since all physical education begins with, reflects, and depends on the environment. The episodes are built around 12 major environmental concepts that form a framework for each grade or subject area, as well as for the entire K-12 program. Although the same concepts are used throughout the K-12 program, emphasis is placed on different aspects of each concept at different grade levels or subject areas. This guide focuses on aspects such as camping, skiing, and fitness. The 12 concepts are covered in one of the episodes contained in the guide. Further, each episode offers subject area integration, subject area activities, interdisciplinary activities, cognitive and affective behavioral objectives, and suggested references and resource materials useful to teachers and students. (Author/TK)

ENVIRONMENTAL EDUCATION GUIDE



Project I-C-E
Robert J. Wapinski

PHYSICAL EDUCATION 7-12

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These materials were produced pursuant
to a grant under Title III, E.S.E.A.

The Wisconsin Department of Public Instruction
Project No. 59-70-0135-4

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Serving All Schools in Cooperative Educational Service Agencies 3-8-9

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FORWARD TO PROJECT I-C-E ENVIRONMENTAL EDUCATION GUIDES

In 1969, the First Environmental Quality Education Act was proposed in the United States Congress. At the time of the introduction of that legislation, I stated:

"There is a dire need to improve the understanding by Americans of the ominous deterioration of the Nation's environment and the increasing threat of irreversible ecological catastrophe. We must all become stewards for the preservation of life on our resource-deficient planet."

In the three years since the Environmental Education Act was passed by the Congress, much has happened in the United States to reinforce the great need for effective environmental education for the Nation's young people. The intensive concern over adequate energy resources, the continuing degradation of our air and water, and the discussion over the economic costs of the war against pollution have all brought the question of the environmental quality of this nation to a concern not merely of aesthetics but of the survival of the human race.

The intense interest by the public in the quality of our lives

as affected by the environment clearly indicates that we cannot just use incentives and prescriptions to industry and other sources of pollution. That is necessary, but not sufficient." The race between education and catastrophe can be won by education if we marshal our resources in a systematic manner and squarely confront the long-term approach to saving our environment through the process of education.

As the incessant conqueror of nature, we must reexamine our place and role. Our world is no longer an endless frontier. We constantly are feeling the backlash from many of our ill-conceived efforts to achieve progress.

Rachel Carson's theme of "reverence for life" is becoming less mystical and of more substance as our eyes are opened to much of the havoc we have wrought under the guise of progress. A strong commitment to an all-embracing program of environmental education will help us to find that new working definition of progress that is a pre-requisite to the continued presence of life on this planet.

- Senator Gaylord Nelson

PREFACE

Physical education begins with, reflects and depends on the environment--both natural and man-made. Leisure time activities or sports involve the use of energy, natural resources, man's manipulation of his world and individual responsibility--to name a few environmental concerns. In this guide, episodes are designed to be inserted into units as you, the teacher, see fit or deem appropriate. Some lessons are short involving a class period or less. Others are longer and should coincide with the "skills" portion of your teaching units.

For instance, the episode on bowling used successfully with high schoolers dramatically illustrates how natural resources like rubber, wood, fuel, etc. have a definite bearing on the extent and type of recreation. The relationship of this "resource demand" to physical education is obvious and needs emphasis if students are to see the "total picture" of their own physical education.

Units on fitness and cardiovascular testing are topics requiring either shorter or longer teaching time--as determined by you and your teaching objectives. Like the bowling lesson, fitness testing is another example of the many possibilities you'll find. Other approaches or adaptations can help you apply more than one concept to a given lesson. Here's a booklet created for you--giving specific ideas plus offering flexibility--for your special teaching situation.

ACKNOWLEDGEMENT

The interest and dedicated effort of the following teachers from Wisconsin Area "B" has led to the development of the Project I-C-E Environmental Education K-12 series:

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DIRECTIONS FOR USING THIS GUIDE

This guide contains a series of episodes (mini-lesson plans), each containing a number of suggested in and out of class learning activities. The episodes are built around 12

major environmental concepts that form a framework for each grade or subject area, as well as for the entire K-12 program. Further, each episode offers subject area integration, multi-disciplinary activities, where applicable, both cognitive and affective behavioral objectives and suggested reference and resource materials useful to the teacher and students.

1. This I-C-E guide is supplementary in design--it is not a complete course of study, nor is its arrangement sequential. You can teach environmentally within the context of your course of study or units by integrating the many ideas and activities suggested.
2. The suggested learning activities are departures from regular text or curriculum programs, while providing for skill development.

3. You decide when any concepts, objectives, activities and resources can conveniently be included in your unit.

4. All episodes can be adapted, modified, or expanded thereby providing great flexibility for any teaching situation.

5. While each grade level or subject area has its own topic or unit emphasis, inter-grade coordination or subject area articulation to avoid duplication and overlap is highly recommended for any school or district seeking effective implementation.

This total K-12 environmental education series is the product of 235 classroom teachers from Northeastern Wisconsin. They created, used, revised and edited these guides over a period of four years. To this first step in the 1,000 mile journey of human survival, we invite you to take the second step--by using this guide and by adding your own inspirations along the way.

PROJECT I-C-E TWELVE MAJOR ENVIRONMENTAL CONCEPTS

1. The sun is the basic source of energy on earth. Transformation of sun energy to other energy forms (often begun by plant photosynthesis) provides food, fuel and power for life systems and machines.
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.
3. Environmental factors are limiting on the numbers of organisms living within their influence. Thus, each ecosystem has a carrying capacity.
4. An adequate supply of clean water is essential to life.
5. An adequate supply of clean air is essential for life.
6. The distribution of natural resources and the interaction of physical environmental factors greatly affect the quality of life.
7. Factors such as facilitating transportation, economic conditions, population growth and increased leisure time influence changes in land use and population densities.
8. Cultural, economic, social, and political factors determine man's values and attitudes toward his environment.
9. Man has the ability to manage, manipulate and change his environment.
10. Short-term economic gains may produce long-term environmental losses.
11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.
12. Each person must exercise stewardship of the earth for the benefit of mankind.

A "Concept Rationale" booklet and a slide/tape program "Man Needs His Environment" are available from the I-C-E RMC to more fully explain these concepts.

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Environmental: CONCEPT NO. <u>7 - Land Use</u> ORIENTATION <u>Camping Equipment and Camping</u> BEHAVIORAL OBJECTIVES		Integrated with: SUBJECT <u>Physical Education</u> TOPIC/UNIT <u>Camping</u> Sites	
Cognitive: Criteria can be used to select the best equipment as necessary for a weekend camping trip to a given location. Demonstrate proper camping practices to harm the environment as little as possible in such practices as: a. Site selection. b. Fire building. c. Trail making. Affective: Maintain the environment in as near to its condition when he arrived, by such practices as: a. Covering garbage. b. Picking up litter.		STUDENT-CENTERED LEARNING ACTIVITIES	
Skills Used: 1. Proper names of equipment for camping and the price. 2. Use of each piece of equipment. 3. How to pick equipment. 4. Discussion procedures.		In-Class: A. Bring equipment from home for a camping display. 1. Explain each piece. 2. Show use. B. Demonstration on packing. C. Have all the students comprise a list of equipment necessary for camping. D. Using outdoor and camping magazines, have students give a presentation on camping in the U.S. and Canada. 1. Possibly a panel on each section of U.S. a. Eastern b. Southern c. Western d. Midwest e. Canada f. Local area 2. Discuss reason for growth. 3. Possible future recommendations. Note: Four students could work in groups through parts A, B, C, and two	Outside or Community: A. Man from a sports store demonstrate camping equipment and the price. B. Movie on camping. C. Have parent or interested party discuss camping and areas for camping in the immediate area.

SUGGESTED RESOURCES

Publications:

Woodall's Trailing Parks and Campgrounds
 Better Camping Magazine, Woodall Pub. Co., 500 Hyacinth Place, Highland Park, Illinois
 Camping and Trailing, American Automobile Association, 1712 G Street, N.W. Washington, D. C. 20006
 The Golden Guide to Camping, Robert E. Smallman, Golden Press, New York

Audio-Visual:

Films:
 Camp Happiness, Purdue Univ.
 Adventuring in Conservation, BAVI

CONTINUED OR ADDED LEARNING ACTIVITIES

CLASSROOM (Continued)

students could make themselves experts in areas of the country. Remainder work out trends in camping--from backpacking to motorized vehicles.

CAMPING EQUIPMENTFor

Comfort Folding table	Fun Boat	Health <u>*First aid kit</u>	Washing Detergent Cold H ₂ O	Emergencies & General Repair kits
Throw rug	Motor Canoe	Snake-bite kit	Soap	*Extra rope
Suntan oil	Hobby equip.	Bactine	Laundry bag	*Extra tarps
Umbrella	Golf clubs	Hydrogen peroxide	Clothesline	Shovel (small)
Folding stools	Binoculars	Disinfectant	Clothespins	Axe
Thermos bottle	Puzzles & games			Hammer
Folding easy chair	Camera Books			*Saw
Sunglasses	Fishing tackle			Pliers
*Insect repellent	Cards			Screwdriver
Clock	Tennis rackets			*Knife
				Bucket
				Broom
				*Wire
				Assortment of nails
				Sewing kit
				*Toilet paper
				*Canteen
				*Compass and maps
				*Matches (water-proofed)

Major Equip.

*Tent or camper
 Ice chest
 Lantern
 Cook stove
 Catalytic heater
 Cooking utensils
 Packs

Sleeping

*Sleeping bags
 Pillows
 Air mattresses
 Extra blankets
 Cots

Personal

Soap
 Toiletries
 Cosmetics
 Shaving Equip.
 *Mirror
 Towels
 Toothbrush
 and paste
 Shampoo
 Deodorant

Clothing

*Wool sweaters
 *Jackets
 *Boots & shoes
 *Extra wool socks
 *Rain gear
 *Hat

*Long underwear
 (The types of clothing worn is determined by the weather or season of the year, terrain etc.)

* Essential for backpacking; if students want to go beyond this they can determine what they would like to bring.

Community:

Environmental: CONCEPT NO. <u>8 - Values and Attitudes</u>		Integrated with: SUBJECT <u>Physical Education</u>	
ORIENTATION <u>Wise Choice of Camping</u>		TOPIC/UNIT <u>Camping Equipment</u>	
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive: Demonstrate the proper care of each piece of camping equipment to be used on the trip. List the most practical equipment necessary for a camping trip to a given location. Explain the purpose (function) of each of the pieces of camping equipment to be taken on the trip. Affective: Share his knowledge of what he values as the most essential equipment for a camping trip in a land area of his choice.		In-Class: A. Discussion 1. Choice of essential equipment in following areas: a. Forest. b. Plains. c. Mountains. d. Desert. e. Snow condition. 2. Is there essential equipment in all areas? B. Role playing: Divide class into even numbered groups and have students show the value of the particular equipment carried and how it could save them if they became stranded in their particular area.	
Skills Used: 1. Improve discussion skills. 2. Give students the opportunity to explore land types and show how equipment varies according to land types.		Outside or Community: A. Local sporting good store or father who has a supply or knowledge of camping equipment. He should talk on cost and value of particular equipment such as: mirror, compass, plastic, wire saw, matches, etc. B. Take a weekend camping trip to a local area, encourage students to bring only basics so the student can actually see why choice of equipment is so important. Teacher may refer to ICE field guide activity, Be Kind To Your Outdoors. See copy attached.	

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>The Golden Guide to Camping</u>, Robert E. Smallman, Golden Press, New York</p> <p>Numerous publications concerning camping and camp equipment are also available in the school and public libraries</p> <p><u>Be Expert With Map and Compass</u>, Bjorn Kjellstrom, American Orienteering Service, New York, 1955</p> <p><u>Survival With Style</u>, Bradford Angier, ICE RMC, 115 An</p> <p><u>Audio-Visual:</u> (Continued)</p> <p><u>Film:</u></p> <p><u>Heritage of Splendor</u>, <u>Camping Equipment</u>, <u>Coleman Company, Inc.</u>, P. O. Box 1762, Wichita, Kansas 67201</p> <p><u>Game:</u></p> <p><u>Outdoor Survival</u>, Education Ventures, ICE RMC, SG 9</p>	<p><u>PUBLICATIONS (Continued)</u></p> <p><u>Be Prepared To Get Lost</u>, ICE field activity guide, ICE RMC</p> <p><u>When You Are In The Woods</u>, Fay Welch, State University College of Forestry at Syracuse University, New York, 1950</p> <p><u>How To Survive On Land And Sea</u>, U. S. Naval Institute, Annapolis, Maryland, 1956</p>

Community:

Local sports representative
Fathers involved in camping

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BE KIND TO YOUR OUTDOORS
(Safety and Courtesy Preparations for Wilderness Camping)

An advanced level field
experience for students in
grades 6-10 based on:

- Concept #11 Individual acts, duplicated or compounded, produce
and significant environmental alterations over time.
- Concept #12 Each person must exercise stewardship of the earth
for the benefit of mankind.

To many, civilization means conquering nature. To conquer nature means to change it. However, man can conquer nature and still leave it as it is. By this we mean we can develop our skills to live with nature, in nature. We do it to get away from the demands of civilization.

Camping and hiking can be fun. It can give us a sense of achievement as well as a rest to a mind and body beaten down by the conflicts of modern living.

However, a large number of people have never learned how to retain the beauty and pleasantness of a wilderness place. This exercise is meant to teach the beginning steps in woodland manners. The student will come to know how to care for wild places. If one learns the techniques of living in nature by camping, this is an extra benefit.

Note to Teachers

Use of this field exercise will give practical experience in applying concepts #11 and #12 of the I-C-E Program. It includes physical education, language arts, and home economics concepts directly in the teaching plan along with value orientation. The contents may indirectly touch science, social studies and art through follow up in the classroom activities.

General rules of woodlands manners should be taught in all stages of the exercise. You may obtain valuable help from experienced camper sportsmen in your area to assist in preparation of the exercise. Consult the suggested resources at the end of this paper for additional ideas.

Use of this exercise

The exercise may be used as a daytime field practice exercise. It may be broken into segments and used over several days time for physical education classes having an outdoor classroom adjacent to the school. It may be used as a field exercise unit for established camps in those school districts which have a camping program. It may be used as an overnight tent camping exercise for an extended field trip.

Activities

A. Trip Preparation

1. Assignment of duties

Divide the class into patrols of five persons each. Give each person a patrol assignment. A 5-person patrol is suggested because state parks restrict campsites to 5 person limits (or 1 family).

Patrol Leader: Assumes overall responsibility within the patrol for observation of safety and courtesy rules. Leads patrol in decision making. Assists each team member as needed.

Trail Guide: Checks packs and assigns pack carrying duties. Leads patrol on overland hike. Checks adjustment of packs at rest stop. Should know how to use a compass. Assists quarter master in setting up camp.

Quarter Master: Directs the setting up of tent or other shelter and the take down of same.

Camp Cook: Collects fire making material together with other patrol cooks, builds fire or operates portable stoves as needed. Cooks or supervises patrol cooking of lunch as previously planned.

Sanitarian: Collects trash along the trail. Sees that no member of his own patrol litters. Together with other patrol sanitarians, sets up latrine area. Supervises final clean up of patrol camp site. Assists in clean up and take down of latrine area.

Remaining students not forming a full patrol should be assigned as aides' de camp to the teacher and other leaders. One student should be appointed medic and carry a good first aid kit.

2. Select equipment needed

Camp equipment - tents, tarps, guy lines, roll of heavy cord, stakes and poles, borrow from parents or from school-connected scout group.

Fire making - matches, tinder, portable stoves if needed (with fuel), camp saw

Latrines - poles, tarp material, canvas or black plastic drop cloth, guy lines, stakes, shovel (folding preferred), toilet paper, soap, wash pan, towel.

Food - Decide on menu in class, consult camp craft manuals for suggestions.

Packs - Supplied by students, relatives, friends.

Equipment list will depend on season, terrain, group size, length of stay, distance from base, personal preferences, and availability of equipment. Consult equipment lists in camp craft manuals and articles. Encourage minimum equipment needs. Axes or hatchets not recommended because of safety considerations. Axe safety may be taught if desired.

3. Do research on safety and courtesy rules for camping and wilderness travel, set up and operation of equipment, sanitation procedures, and other aspects of wood lore.
4. Obtain the help of parents, aides, or others with camp experience to assist the teacher during the field time.
5. Locate camping area, obtain permission to use, rules to follow, check out site before trip.

B. Field Day

1. Pack equipment in available packs.
Assign equipment carrying duties proportionately to each patrol.
2. Travel to departure point.
3. Trail procedures:
 - a) Off-load students some distance from campsite.
 - b) Load assigned packs on patrol members.
 - c) Take overland hike to training campsite via interesting trail route (use of snowshoes or cross country skis is encouraged for winter wilderness visit).
 - d) Observe trail courtesy along the route.
 - e) Take 3-5 minute rest stop. Adjust packs, discuss packing problems.
 - f) Continue trip to campsite.

Minimum Rules of Trail Courtesy

1. Treat all land as if you owned it. Take care of it as would a good landowner who cares for his land. Be nature's protector.
2. Do not damage or destroy any trees, plants, or flowers.
3. Leave no litter.
4. Do not damage trail signs.
5. Avoid causing erosion. Walk away from erodable bank edges.
6. No radios or other city noises, please!
7. Do not blaze trails. If necessary to mark the trail, use crepe paper or use loose native material for trail signs.

Wilderness Traveler's Pledge

I believe that man can travel through the wilderness and
Leave No Trace.

I will keep my group small.

I will keep my stay in one place short.

I will not dig up ground cover.

I will not cut down trees or branches.

I will not build fires or, if I do, I will keep them small
and scatter their remains.

I will leave no trash or other evidence of my stay in the
wilderness.

I WILL LEAVE NO TRACE.

G. A. Cunningham

4. Setting up camp

- a) Upon arriving at the designated camp site, patrols
will select, under teacher guidance, specific unit
locations.

Each unit, following the basic rules for setting up
a tent, prepares the assigned location and sets up
camp.

- b) Sanitarians, with the assistance of the aides' de camp,
should set up a latrine area at the same time. See
Number 5.

- c) Camp cooks should prepare a campfire. Make fires
reasonably small and limit to two or three for the
whole camp. See Number 6.

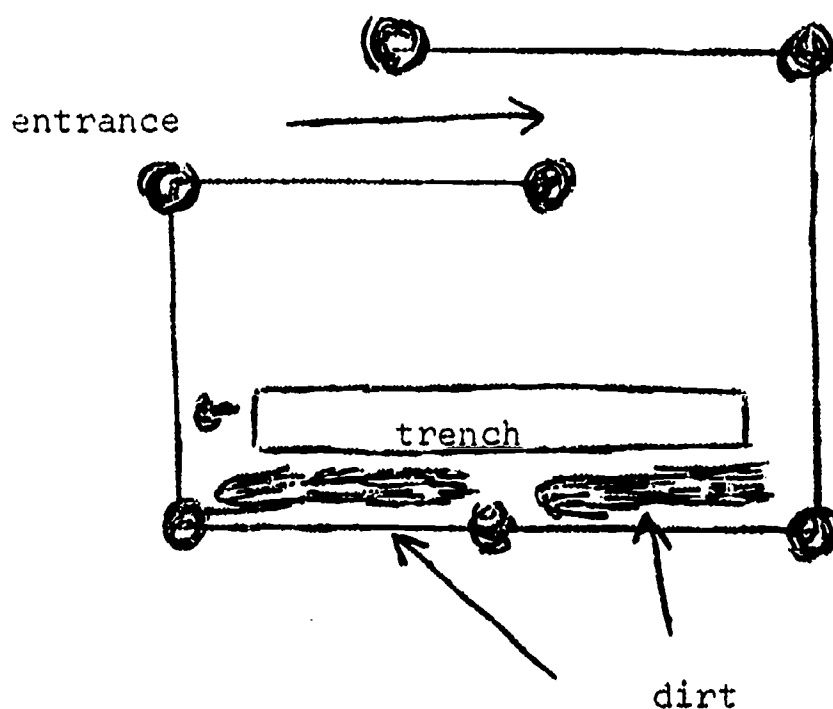
- d) Set up a variety of tents and tarps if available to
demonstrate different set ups. Use prepared tent pegs
rather than cutting any at the site.

5. Sanitation in practice

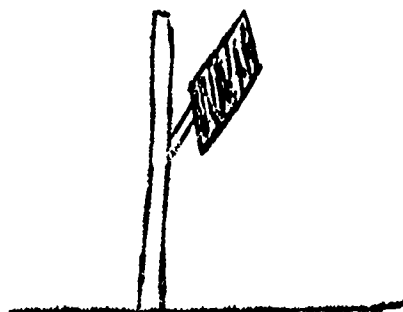
- a) Suggestion: Use black plastic drop cloth for latrine
wall material. Plastic or canvas tarp material also
works, canvas is heavy to carry.

- b) At the time of setting up camp, sanitarian will select a latrine site some distance from the main campsite and preferably somewhat screened from it by trees, etc. (Two latrines, boys and girls, may be set up.)
- c) Setting directions. Latrine site must be at least 15 meters (50 feet) from water (streams, lakes, wells, etc.)
- d) A latrine trench should be dug about 20-25 centimeters (8-10 inches) wide and about 20-25 cm. deep. Make trench about one meter (one yard) long.
- e) Use long pointed stakes for a frame; it will help to support the stakes with guy lines. Tie latrine wall material to frame. Sapling trees may serve as part of the frame.

Top view - walled latrine



- f) Set up toilet paper. Support on a stick.



Place shovel in latrine. Use to cover human waste material.

- g) Set up a wash pan with soap and towel outside latrine entrance.
- h) After inspection. Sanitarians take down latrine and cover trench at end of exercise, return area to natural appearance.

Sanitarians responsible to see that all refuse is carried back from campsite. Do not use trench to bury waste. Cans and bottles should be recycled.

6. Camp fires, food preparation

- a) Cooks will work together to gather fire making materials, set up cooking fires (2-3 for the whole class, and begin cooking duties. They may be aided as help is available by other team members.)
- b) Fire making. Gather only dry dead material; a small bow saw should be provided. Avoid the use of axes. Use firm dry wood of small diameter for fuel wood. Break off small dead branches for kindling.

Prepare a fire circle (see various manuals for details). Place the tinder and kindling inside the fire circle; place fuel wood on top.

Start a fire down under the tinder, don't start fires from the top.

- c) A demonstration may be given by the teacher in the use of gasoline camp stove operation. Propane stoves are never recommended because of the propane fuel shortage.

Charcoal may be used in place of wood if time permits. It may be necessary to bring fuel to the campsite if the camp area provides little natural fire making material. Never cut living trees for firewood.

7. Camp lunch

Each patrol prepares food under direction of the cook and eats it.

Sanitarians make sure each patrol cleans up its campsite.

8. Camp inspection

- a) The teaching team inspects the work of each patrol unit and the latrine area.

- b) A discussion period follows the inspection. Safety and courtesy procedures, results of the inspection, reasons for procedures are pertinent points in the discussion.
 - c) Sanitarians demonstrate two methods for purifying water:
 - 1) halazone tablet method
 - 2) boiling method
- 9. A field class or demonstration may be incorporated ad libitum magistri (according to the wishes of the teacher). A gun safety demonstration and discussion of hunting sportsmanship is very appropriate. Axe safety and manners is also appropriate.
- 10. Camp take down
 - a) Remove tents.
 - b) Put out fires, dead out.
 - c) Return site as best as possible to natural conditions.
 - d) Latrine take down.
 - e) Final inspection.
- 11. Return hike

Continue to observe trail courtesy.
- C. Follow-up
 - 1. Care for equipment.
 - 2. Letters of thanks to:
 - landowner
 - parents and campers who assisted
 - 3. Continue research on camping and camp courtesy.

Resources

Angier, Bradford, 1972. Survival With Style, National Wildlife Federation, Washington, D. C., 320pp. Available from Project ICE Resource Center.

Minnesota Department of Education. Minnesota Environmental Education Curriculum Project, Unit #6, Cookout, 108pp. Available from Project ICE Resource Center.

Boy Scouts of America, 1967. Fieldbook 565p. Available at Boy Scout Field Office, Bay Lakes Council, Box 516, Menasha, WI 54952 and through Boy Scout suppliers in every city.

Smallman, Robert, 1965. The Golden Guide to Camping, Golden Press, New York, 160pp. \$1.25. Available in department store bookracks.

Ormond, Clyde, 1964. Complete Book of Outdoor Lore, Outdoor Life Books, Harper & Row, New York, 498pp.

Boy Scouts of America, 1972. Scout Handbook, 8th edition, 480pp. Available from scout suppliers in every city.

Environmental:

Integrated with:

CONCEPT NO. 12 - Stewardship

SUBJECT Health Education

ORIENTATION Health and Food Guidelines in Camping

TOPIC/UNIT Camping - Health and Safety

BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive: Demonstrate proper health procedures and safety precautions to be used while camping. Examples are: a. Fire safety. b. Personal safety. c. Litter control. d. Sanitation.	List types of food considered appropriate for a camping trip and explain why each selected.	In-Class:	Outside or Community:
		A. Have students list types of food for camping. 1. Dehydrated foods. 2. Foods for energy. 3. Foods for balanced nutrition.	A. An experienced good camper from the community, preferably a parent of one of the students.
		B. Sanitary supplies. 1. Soap. 2. Containers to carry non-burnables out of woods. 3. Halizon tablets. 4. Toilet tissue. 5. First aid kit.	B. Person from a ranger station or DNR to explain problems that arise from poor camping habits.
		C. Packing of food. 1. Lightweight food with balanced nutrition. 2. Label items. 3. Bring only what you need.	C. Students go to local park or camping area to pick up litter and try to show a before-and-after effect.
Affective: Agree to maintain the environment as nearly as possible, in its present condition.		D. Disposing of garbage. 1. Burn what is burnable. 2. Remove what is not burnable.	D. Arrange class picnic to demonstrate if all people take an added minute to pick up after themselves, then we have started to keep our environment as is.
Skills Used: 1. Preparing an adequate but light supply of food stuffs for a camping outing. 2. Self preservation in the outdoors. 3. Conservation and appreciation of our natural resources.		Note: Leave area as you found it!	

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SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>Wabelos Scout Book, Boy Scouts of America, 1967</u></p> <p><u>The Golden Guide to Camping, Robert E. Smallman, Golden Press, New York</u></p> <p><u>Field Book for Boys and Men, Boy Scouts of America, New Brunswick, New Jersey, 1967</u></p> <p><u>How To Survive on Land and Sea, United States Naval Institute, Annapolis, Maryland, 1956</u></p> <p><u>Be Kind To Your Outdoors, ICE field activity, guide, ICE RMC</u></p> <p><u>Audio-Visual:</u></p> <p><u>Film:</u></p> <p><u>Adventuring in Conservation, BAVI</u></p> <p><u>Game:</u></p> <p><u>Outdoor Survival, Education Ventures, ICE RMC, SG 9</u></p> <p><u>Community:</u></p> <p>Local dietician</p>	

Environmental:

Integrated with:

CONCEPT NO. 10 - Economic Planning

SUBJECT Health Education

ORIENTATION First Aid - Burns

TOPIC/UNIT Camping - Campfires

BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive:		In-Class:	Outside or Community:
Identify types of burns and be able to demonstrate proper first aid and preventative techniques for burns.		A. Movies: Treatment of Wounds and Burns and <u>First Aid Now</u> . B. <u>Campfire construction</u> . 1. Fire ring in open area. 2. Gathering of kindling and larger wood, making sure it is dry. 3. Make allowance for oxygen to get to base of fire, usually by alternate stacking of wood or a tee-pee.	A. School nurse or county nurse to speak on burns. B. Red Cross volunteer to speak on the treatment of burns and the prevention. C. Students break into groups which are responsible for the following: 1. Preparing fire ring, starting and keeping fire going. 2. Gathering kindling. 3. Gathering large wood. 4. Extinguishing fire. Suggestions: a. Show where kindling can be found. b. Show the use of a hatchet and how it can be used in making kindling wood.
Explain the importance of proper treatment of a burn.			
Affective:			
Recommend safety and first aid knowledge as it applies to camping.		C. Addition of fuel (wood) to fire. 1. Never throw wood on fire. 2. Set wood on gently. D. How to extinguish fire. 1. Spread coals out within ring. 2. Soak in water and stir with stick. E. Discussion and showing types of burns. 1. Using raw meat rind, burn to various degrees.	
Select the site for a campfire which is appropriate for the land and wind conditions.			
Make sure that the campfire is out before leaving; even if it requires additional time and energy to get water, etc.			
Skills Used:			
1. Construct a campfire properly. 2. Proper use of utensils. 3. Prevention and treatment of burns.			

(Continued)

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>Family Guide Emergency Health Care, U.S. Dept. of HEW, 1968,</u> <u>Public Health Service</u> <u>Boy Scout Handbook, Wabelos</u> <u>Scout Book, Boy Scouts of</u> <u>America</u> <u>How to Survive on Land and Sea,</u> <u>United States Naval Institute,</u> <u>Annapolis, Maryland, 1956</u></p> <p><u>Audio-Visual:</u></p> <p><u>Treatment of Wounds and Burns,</u> <u>film, BAVI</u> <u>First Aid Now, film, BAVI</u> <u>Game:</u> <u>Outdoor Survival, Education</u> <u>Ventures, ICE-RMC, SC 9</u></p> <p><u>Community:</u></p>	<p><u>CLASSROOM (Continued)</u></p> <p>F. Treatment of burns.</p> <ol style="list-style-type: none">1. Cover with clean dressing and get medical aid.2. Shock can be involved.<ol style="list-style-type: none">a. Lay victim down.b. Keep warm.c. Elevate feet.

Environmental:		Integrated with:	
CONCEPT NO. 2 - Ecosystem		SUBJECT Physical Education/Camera Club	
ORIENTATION Leisure Time		TOPIC/UNIT Camping - Hunting With Cameras	
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive: Show the results of their animal observations through slides and picture displays and make use of available materials in setting up a camouflage blind.		In-Class: Note: This should be done in a local woods beginning in the early morning, feeding time for animals, and 1/2 day should be quite adequate. Actual hunting with camera. A. How to hunt. 1. Need for camouflage. a. Take and study pictures or film-strips of different environments in area. Determine how person would dress to take effective pictures of an animal in its environment. Perhaps show comparison of clothing to an area. b. Discuss different methods of preparing a blind. 1. Through use of a drawing or diagram. 2. Actual field experience thru field trip. (Continued)	Outside or Community: A. Start school or community club to go hunting with cameras. Go to different areas and take pictures of as many different kinds of animals and habitats as possible. Could even show animals through the different seasons. B. Bring in resource person from community. Could be wildlife photographer from local magazine or newspaper. Could also be someone from community who has hobby in this area. C. George Howlett, Project I-C-E office, Green Bay. Slides on many habitats and environments.
Affective: Show, through discussion, an awareness of wildlife and their habitats.			
Skills Used: 1. Use of camouflage to observe animals. 2. Properly determine animal habitat. 3. Care and handling of camera equipment. 4. How to use quietness and skills of tracking in observing animals.			

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>Animal Behavior</u>, Niko Tinbergen, <u>Life Nature Library</u>, Time-Life Books, Silver Burdett & Co. <u>Complete Book of Outdoor Lore</u>, Ormond, Harper Row, 1965 <u>Peterson Field Guide Series</u>, <u>"Birds"</u>, <u>"Butterflies"</u>, <u>"Animal Tracks"</u>, and <u>"Reptiles and Amphibians"</u>, ICE RMC, 115 Pf</p> <p><u>Audio-Visual:</u></p> <p><u>Films:</u> <u>Nature's Half Acre</u>, Walt Disney, ICE RMC, Film #210 <u>Let's Make a Film</u>, ICE RMC, Film #360</p> <p><u>Filmstrips:</u> <u>Audubon's Birds of America</u>, <u>Encyclopedia Britannica</u> <u>Plant and Animal Relationships</u>, <u>Encyclopedia Britannica</u></p> <p><u>Kit:</u> <u>The Variety of Living Things</u>, McGraw Hill, ICE RMC, KT 37</p> <p><u>Community:</u> Audubon Society member Amateur bird or animal watcher</p>	<p><u>CLASSROOM (Continued)</u></p> <ol style="list-style-type: none"> 3. Discuss how to make use of available brush and vegetation. Teach to do this with as little cutting or destroying as possible. Use available waste. 2. Determine quietness and cover needed to observe specific animals. <ol style="list-style-type: none"> a. Take specific animals and show their behavior. Discuss how cover, noise, and smell would affect behavior of these animals. Make charts showing this for particular animals. b. Determine how to approach these animals and take their pictures. Discuss determination of wind. etc. before going out to take pictures. B. Take hike to a certain environment. <ol style="list-style-type: none"> 1. Keep record of colors and cover found in this area. 2. Also, look for tracks of different animals. Try to find different habitations found in this area. Students can keep records through notes or drawings. When back together, compare notes and determine animals and environments found. 3.

Environmental:

Integrated with:

CONCEPT NO. 12 - Stewardship

SUBJECT Physical Education/Camera Club

ORIENTATION Leisure time

TOPIC/UNIT Camping - Camera Hunting

BEHAVIORAL OBJECTIVES

STUDENT-CENTERED LEARNING ACTIVITIES

Cognitive:

Compare camera "hunting" with gun or bow and arrow hunting in terms of its value in preserving the environment.

In-Class:

Outside or Community:

Purpose of camera hunting.
A. Why hunt with a camera?

A. Present display in school or community on uses and value of camera hunting. Display charts, comparison, etc.

1. Conduct a comparison of costs of different types of hunting. Compare costs of three types of hunting: camera, archery, rifle. Use catalog and price lists of various items, (include arrows, shells, film, etc.). Present in form of bulletin board, chart or debate the costs of each one.

B. Work in relation with school camera club if there is one.

C. Newspaper photographer. Photograph. Shop.

D. Organize a local group which is interested in camera hunting.

Affective:

Promote camera "hunting" as a way of preserving the beauty of today for tomorrow.

Offer the positive and negative aspects of each means of hunting and why camera "hunting" is more beneficial to our environment.

- a. Camera
- b. Rifle
- c. Bow and arrow
- d. Poison

Skills Used:

1. Presenting cost analysis of different items.
2. Understand care and handling of cameras.
3. Determine value and effect of different cameras.

2.

Present a comparison of the different types of hunting and how they affect the environment.

a. Noise-tape noise levels of the different types of equipment. If possible, determine decibels of each noise.

b. Accidents-Make chart or bulletin

(Continued)

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p>Obtain manuals for cameras showing operating instructions and parts.</p> <p>Kodak Color Guide</p> <p>Kodak Dark Room Guide</p> <p><u>Photography for Kids</u>, ICE RMC, 110 Ph</p> <p><u>Audio-Visual:</u></p> <p>Films:</p> <p><u>Let's Make a Film</u>, ICE RMC, Film #360</p> <p><u>Searching Eye</u>, BAVI</p> <p><u>Color Quality of Light in Photography</u>, BAVI</p> <p><u>Instincts in Animals</u>, BAVI</p> <p><u>Community:</u></p>	<p><u>CLASSROOM (Continued)</u></p> <p>board showing possible accidents and causes in each type of hunting. Make comparison of hunting deaths for each type. Statistics available from DNR. Also make comparison of useless kill of animals, failure to track wounded animal, etc.</p> <p>B. Equipment.</p> <ol style="list-style-type: none"> 1. Discuss fact that camera hunting can be done without any seasonal regulations. No license is needed and a person of any age can do it. 2. Type of equipment to be used: <ol style="list-style-type: none"> a. Make a display of different types of cameras available. (Perhaps different families could provide different types of cameras.) Possible cameras to use in this type of activity. <ol style="list-style-type: none"> 1. Kodak Instamatic - seems to be best at lowest price. Slides can also be taken. 2. More expensive 35mm models. These would be obtained mostly from parents. <p>C. How to use equipment.</p> <ol style="list-style-type: none"> 1. Show students shutter release and film advance (Instamatic). 2. Show students F stops and shutter speeds. (35mm) 3. Discuss ASA (speed of film and how this effects F stops and shutter speeds). <p>D. Take students out and help them take pictures of birds, chipmunks, etc.</p> <ol style="list-style-type: none"> 1. Display picture after developed.

Environmental:

Integrated with:

CONCEPT NO. 9 - Management

SUBJECT Physical Education

ORIENTATION Leisure Time

TOPIC/UNIT Hiking - Tracking

BEHAVIORAL OBJECTIVES	STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive:	In-Class:	Outside or Community:
Observe and identify different types of animal tracks while hiking.	A. Purpose of animal tracking. 1. Show it as a way of making leisure hiking more interesting. As you are hiking you can observe tracks around you.	A. Keep on display all the tracks the students have observed. Also display other signs which have showed presence of an animal.
Demonstrate a method of making an impression of a track or marking.	B. Study different types of animal tracks. Have students make small pocket-size book which can be carried along with them. Include all types of tracks to be found in area and possibly in the state. Bring in markings and signs made by reptiles. In book include signs on vegetation and brush (broken branches, clean berry bushes, etc.). Study the effects of wetness and dryness of soil on tracks, set up pans which include different types of soil at different levels of wetness. Then take something which can make a	B. Display material in local establishments of community to help people identify tracks of different animals. Include posters showing this as added means of enjoyment in hiking. Have students set up afternoon or evening classes to teach their knowledge to adults. Develop an area where local people may hike to observe animal markings. Be concerned about the animals, don't disturb their environment. A DNR person could be of assistance in planning this type of hiking trail.
Affective: Shows an awareness of the variety of animal tracks by counting them while participating in the leisure time activity of hiking.	C.	C.
Skills Used: 1. Correctly reproduce something which is observed. 2. Identify and associate animal tracks. 3. Correctly follow and track animals.		

(Continued)

SUGGESTED RESOURCES

Publications:

Animal Tracks, George Mason
Mammal Guide, Ralph Balmer
Complete Book of Outdoor Lore,
Ormond, Harper Row, 1965
Peterson Field Guide Series,
ICE RMC, 115 Pf
NASCO Field Guide, Animal Tracks

Audio-Visual:

Films:
Animal Tracks & Signs, BAVI
Common Animals of the Woods,
BAVI

Community:

Local guide or hunter to teach
tracking to students.

CONTINUED OR ADDED LEARNING ACTIVITIES

CLASSROOM (Continued)

- Print and put this impression on soil. Examples: Take 1/2 of potato and carve a track on it. Study the appearance of the print in different pans. Also leave it sit for a few days and see how this affects the track. This will help to determine age of tracks when spotted.
- D. Take class on trip to area where animals are known to exist. Then have students look for tracks. Determine the animal and draw tracks from observation.
- E. Teach students how to make plaster of paris casts of tracks while in woods. Use milk cartons to work on this project. Take milk carton and cut out top and bottom, use this one as a mold. Carry water in other one. Place mold carton over track and seal bottom with dirt. Mix plaster of paris and pour in mold. Leave dry and take mold off of track. Could also make display of these.

Environmental:

Integrated with:

CONCEPT NO. 2 - Ecosystem SUBJECT Girls Physical Education

ORIENTATION Community Dynamics TOPIC/UNIT Rhythms - Modern Dance

BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive:	In-Class:	Outside or Community:	
Demonstrate, through creative dance, an interpretation of an ecosystem.	A. Class work. 1. Select several environmental systems that demonstrate an ecosystem and write them on individual sheets of paper (see examples on back).	A. Possibility of making this into program to present to school or community.	
Analyze a person's example of an ecosystem by determining if all the factors are present or not.	2. Select short pieces of music to go with each one. Make these fairly simple to interpret and move to.		
Affective: Displays both detrimental and advantageous attitudes of man to the ecosystem of which he is a part through music and interpretive movement.	3. Assign one concept to each individual or pairs of individuals. Give short time to prepare and set up. (Another possibility is to let students select their own music. More preparation time would be needed however.)		
Skills Used: 1. Application of a certain subject to selected forms of music. 2. Use of body movement as a means of interpretation and expression. 3. Freedom of movement--feel uninhibited.	4. Have individuals dramatize their concepts to class thru the use of movement and music. This type (Continued)		

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>Audio-Visual:</u></p> <p>Films: <u>Being Me, BAVI</u> <u>Modern Dance, BAVI</u></p> <p><u>Community:</u></p>	<p><u>CLASSROOM (Continued)</u></p> <p>of activity is something like "Charades".</p> <p>5. PTO demonstration which would have an ecology theme.</p> <p>Examples of Environmental Systems:</p> <ol style="list-style-type: none"> 1. A river and its effect on the land, animals and population within its system. 2. A hawk and its relation to its environment. Provides good possibility for both arm and leg movement. Possible to bring in example of the fish hawk in New England and the effects DDT have had on its reproduction. 3. Comparison of a molecule of air in an industrial, smoke filled city to molecule of clean, fresh air in country. Ex.-Try to bring information of smog (molecule being trapped). Perhaps molecule affecting human being, etc. 4. A piece of litter (tin can, etc.) and its effects on the environment around it. Recycling could be brought in. <p>Note: This lesson should be taught after basic modern dance techniques have been demonstrated.</p>

Environmental:

Integrated with:

CONCEPT NO. 6 - Resources

SUBJECT Health or Physical Education

ORIENTATION Available Facilities

TOPIC/UNIT Outdoor Recreation

BEHAVIORAL OBJECTIVES

STUDENT-CENTERED LEARNING ACTIVITIES

Cognitive:

Map the possible recreational resources in the state considering the seasonal environmental conditions.

In-Class:

Note: The activities could be done in correlation with your class work and possibly trying different local area for these particular activities and then discuss the amount of local recreational facilities available. The map portion could be incorporated with geography.

A. Divide the class into groups of 2 or 3. Each group will select a different outdoor recreation.

1. Skiing, water, snow.
2. Swimming.
3. Hiking.
4. Surfing.
5. Snow shoeing.
6. Canoeing.
7. Bicycling.
8. Golfing.
9. Tennis.
10. Fishing.
11. Horseback riding.
12. Camping, etc.

Outside or Community:

A. Write to AAA for information on tourist areas.

B. Write to the travel bureau or tourist information centers for available material.

C. During mini-course or on a weekend a group of students could go to different recreational resources in the area and then make a chart of those which were most desirable and those which were least desirable.

Affective:

Show an awareness of the many factors influencing recreational facilities through a class presentation in which some are included.

Skills Used:

1. Research.
2. Class presentation.

B. Have groups make maps of sample areas suitable for their selected recreation. One group could

(Continued)

SUGGESTED RESOURCES

Publications:

Numerous publications concerning outdoor recreation and facilities are available in the school and public libraries.

CONTINUED OR ADDED LEARNING ACTIVITIES

CLASSROOM (Continued)

also be assigned to map all types or recreational areas within the local area.
C. Their presentation to the class should include climatic, geographic, economic and environmental considerations for such facilities.

Audio—Visual:Films:

Heritage of Splendor, University of Wisconsin
Better Use of Leisure Time, BAVI
Forest, BAVI

Community:

F. S. F. A. Title III - PROJECT I-C-E 59-70-0135-4

<p>Environmental:</p> <p>CONCEPT NO. <u>1 - Energy</u></p> <p>ORIENTATION <u>Fitness</u></p>		<p>Integrated with:</p> <p>SUBJECT <u>Health/Physical Education</u></p> <p>TOPIC/UNIT <u>Hunting - Recreation</u></p>	
<p>BEHAVIORAL OBJECTIVES</p> <p>Cognitive:</p> <p>List appropriate reasons why hunter should be physically fit before going hunting.</p> <p>List exercises that would be useful in building a person's physical fitness and explain the function of each.</p> <p>Affective:</p> <p>Express the need for physical fitness in hunting.</p> <p>Suggest exercises that could be used to increase one's physical fitness.</p> <p>Participate in a physical fitness program for would-be hunters as an assistant.</p>		<p>STUDENT-CENTERED LEARNING ACTIVITIES</p> <p>In-Class:</p> <p>Note: Part B should be incorporated with a biology unit on the sun, so the students can correlate the sun and its energy with man and his energy.</p> <p>A. Involve the students physically in situations where energy is used.</p> <p>1. Provide a set-up obstacle course for students which poses situations or movements in different types of hunting. (crawling, climbing, walking, jogging, hopping) Time the obstacle course in class--motivation by competition.</p> <p>B. Discuss and show the energy cycle from sun to plants to animals. Show through use of comparison how man receives stored energy.</p> <p>C. Have the students make charts showing exercise and training which would be necessary for a man to be physically capable of hunting.</p> <p>Outside or Community:</p> <p>A. Take trip to nearby wooded area.</p> <p>B. Outside speaker, possibly from DNR, to tell about hunting, accidents caused by fatigue and heart attack.</p> <p>C. M.D. to speak on heart attack, physical fitness, etc.</p> <p>D. Visit clinic for hunting lessons. Emphasis on safety, physical readiness.</p> <p>E. This exercise could be offered to people in the community interested in hunting 2-3 weeks prior to the season.</p>	
<p>Skills Used:</p> <p>1. Evaluation of personal level of physical capacity thru use of informative and descriptive charts.</p> <p>2. Relating specific exercises to muscular development.</p> <p>(Continued)</p>		<p>(Continued)</p>	

SUGGESTED RESOURCES

Publications:

President's Council on Physical Fitness

CONTINUED OR ADDED LEARNING ACTIVITIES

SKILLS (Continued)

3. Being able to analyze a physical weakness and improve that area through appropriate learned exercises.

CLASSROOM (Continued)

D. Have available number of hunter-related deaths and injuries in Wisconsin from heart attack, fatigue and carelessness. Divide class into groups to discuss how these could have happened and been prevented. (Supplement this part with movie, Death Is A Careless Hunter.

Example of chart for "C".

Areas for Muscular Development in Hunting. Done on the basis of those movements emphasized in hunting and on the obstacle course. You can individualize it by emphasizing those exercises for certain students who are weak in only certain areas.

Heart	Legs	Arms	Stomach	Neck
1. Jogging 2. Hiking 3. Wind-sprints 4. Timed obstacle course	1. Leglifts 2. Isometrics 3. Stretching exercises	1. Pushups 2. Arm and shoulder exercises	1. Situps	1. Bridges

Films:

Audio-Visual:

Death Is A Careless Hunter, BAVI
Physical Fitness and Good

Health, BAVI

Pictures or slides showing local terrain for hunting
Chalkboard talk or chart showing energy cycle

Community:

Wisconsin DNR - speaker
Local hunting guide

Although safety should not be de-emphasized, it could be brought out as partial knowledge--on the basis of the movie supplement--at this time carelessness could be emphasized as a major reason for deaths and injuries.

Environmental: _____ Integrated with: _____

CONCEPT NO. 2 - Ecosystem SUBJECT Health Education

ORIENTATION Safety TOPIC/UNIT Hunting - Equipment

BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
<p>Cognitive:</p> <p>Show, through the use of diagrams and charts, the purpose of proper and safe hunting equipment.</p> <p>Evaluate the need for safety training needed for persons hunting today and the need for hunting 100 years ago.</p>	<p>In-Class:</p> <p>A. Show pictures or models of different weapons used in hunting. Discuss effectiveness and use of weapons for different types of hunting. Discuss range, velocity, safety, noise levels, etc. (Bows, shotguns, 30-30, etc., can be used as examples)</p> <p>B. Have students draw and diagram the different parts of particular weapons, including shells. Discuss relationship of parts as a type of ecosystem. Ex. - faulty shell will lead to misfiring just as polluted river will affect its ecosystem. (Possibly explain importance of each part of weapon.)</p> <p>C. Have students demonstrate proper care and handling of different types of weapons. Show pictures of local hunting areas. Discuss dress for hunting in these areas. Bring out examples of camouflage, warmth, dryness, etc.</p>	<p>Outside or Community:</p> <p>A. Set up display in school or community showing care and safety concepts taught in lesson. Also, police officer would be helpful.</p> <p>B. Start action to set up a course on firearm safety in school or community.</p> <p>C. Show relationships (in display) of proper hunting equipment and their effect on the environment of the hunting area. (noise, litter, etc.)</p> <p>D. Possible correlation with science units on behavior of white tail deer, migration of birds, wildlife in particular area.</p> <p>E. Offer course 2-3 weeks prior to hunting season for the adults in the community. THIS UNIT COULD BE INCLUDED WITH THE UNIT ON FITNESS, CONCEPT #1, PAGE 35.</p>	
<p>Affective:</p> <p>Accept certain techniques for a safe and comfortable hunting experience.</p> <p>Use safety procedures when using a weapon, without supervision.</p>			
<p>Skills Used:</p> <p>1. Knowledge of weapon and equipment being used.</p> <p>2. Care and handling of weapon in sport of hunting.</p> <p>3. Safety and care of hunter in relation to his weapon.</p> <p>4. Preparation of instructive charts and diagrams.</p>			

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SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u> Dept. of Natural Resources, pamphlets on gun training and equipment care Material on gun safety course offered by state</p> <p style="text-align: center;">*</p> <p><u>Audio-Visual:</u></p> <p>Films: <u>Death Is A Careless Hunter</u>, BAVI <u>Trigger Happy Harry</u>, BAVI <u>Shotgun Shooting and How</u>, BAVI <u>Movies from firearms and archery</u> manufacturers showing production and handling of product, could possibly be obtained from ROA's Films, Milwaukee</p> <p><u>Community:</u> Local sheriff or rifle training expert to speak on safety and care of firearms</p>	<p><u>CLASSROOM (Continued)</u> Possibly bring in reasons why much of this clothing is needed. Bring out that colors can be out of place in an animal's environment and, therefore, attract undue attention to the hunter.</p>

Environmental:		Integrated with:	
CONCEPT NO. <u>5 - Air</u>		SUBJECT <u>Health/Physical Education</u>	
ORIENTATION <u>Personal Limitations and Health</u>		TOPIC/UNIT <u>Fitness - Cardiovascular Testing</u>	
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive: Graph their individual cardio-vascular capacity related to oxygen intake under varying degrees of physical activity. Predict the oxygen intake for a given type of activity using the graph as the basis.		In-Class: A. To be done before class: 1. Teacher sets up circuit training--an exercise program set up within the capacity of each child. B. Teacher sets up an experiment to measure students' lung capacity. Materials needed: Two foot rubber tubing, one gallon jug and one flat level pan. C. Teacher starts class by distributing individual score cards for graphic representation of oxygen capacity. 1. Explain measuring device for capacity. 2. Have several measuring stations to speed up activity. D. When testing is completed, teacher can make long-range correlation between lung capacity and circuit training continued over a specified period of time. (Continued)	
Affective: Appreciate and accept the fact that our existing supply of clean fresh air is an essential item through his improvements of lung capacity and correlations presented by teacher to environment.		Outside or Community. A. Talk at PTO meeting and encourage adults to increase their lung capacity, thus improving heart strength and general fitness.	
Skills Used: 1. Testing. 2. Correlations.			

SUGGESTED RESOURCES

Publications:

Fitness for Elementary School Children, Victor P. Dauer, Burgess Pub. Co., Minnesota

Audio-Visual:

Films:
Heart, Lungs and Circulation, BAVI
Fitness Challenge, BAVI
Exercise for Happy Living, BAVI

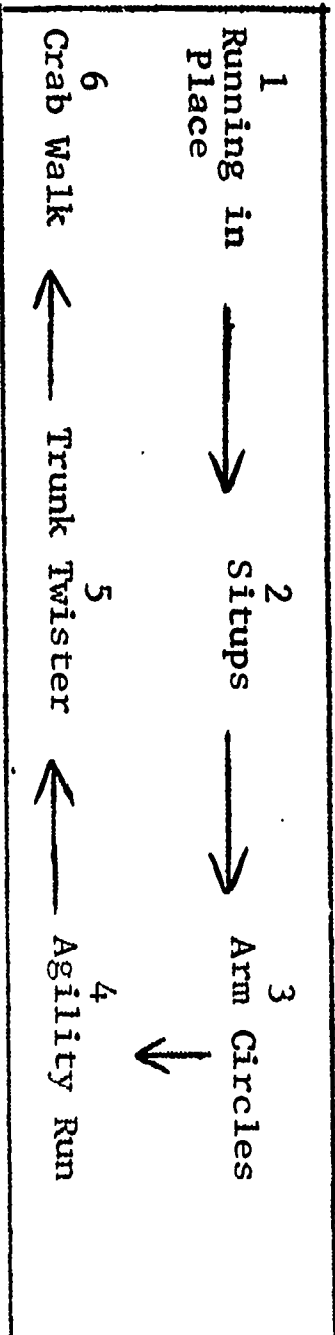
Community:

CONTINUED OR ADDED LEARNING ACTIVITIES

CLASSROOM (Continued)

1. Lung capacity is measured again after specified levels of activity. Students will see through their own measurements, an increase in capacity over a period of time from their original tested level.

A sample circuit training course.



Supplies and equipment: Mats for situps (to hook toes)

Time Needed: 4 minutes - based on 30-second activity limit.
10 seconds to move between stations.

A suggested progressive time schedule to be used as a guide for timing the circuit is as follows:

Introduction - 15 seconds at each station.
1st two weeks - 20 seconds at each station.
2nd two weeks - 25 seconds at each station.
After four weeks - 30 seconds at each station.

Through the use of the students' individual score cards, he will see his own improved lung capacity (on the basis of comparing original tested data before and after prolonged circuit training.)

Environmental:		Integrated with:	
CONCEPT NO.	9 - Management	SUBJECT	Physical Education
ORIENTATION	Bodily Development	TOPIC/UNIT	Exercise - Movement Area
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive:		In-Class:	Outside or Community:
<p>Draws conclusions that there is a positive correlation of the type and amount of exercise to the functioning efficiency of the human body.</p> <p>Develop an exercise program that is suitable for the person's weight, height and other characteristics.</p>		<p>Note: Man must manage the land as man must manage his body. This correlation if used, can make the student more aware that his body is an environment of its own and should be taken care of as such.</p> <p>A. Introduction for the class should be done for motivation.</p> <p>1. Weight lifting demonstration.</p> <p>2. Movie, <u>Physical Fitness</u>.</p> <p>B. Exercising to music.</p> <p>1. Rhythms used for motivation.</p> <p>a. Vary strength exercise with combatives.</p> <p>b. Use traditional exercises for strength.</p> <p>1) Isometrics - couple.</p> <p>2) Push ups - chin ups, sit ups, pull ups.</p> <p>This is a long-range episode that could be used in accordance with a testing program</p> <p>(Continued)</p>	
Affective:			
<p>Finds satisfaction in perceiving improved bodily development which he can manage, manipulate and change.</p> <p>Promote exercise as a way of increasing the functioning efficiency of the human body.</p>			
Skills Used:			
<p>1. Manipulation and body control.</p> <p>2. Controlling object through coordination of muscular system.</p>			

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p>Health Magazine, STRENGTH Professional Journals, JOHNER, AAHPER</p> <p><u>Audio-Visual:</u></p> <p>Films: <u>Why Exercise?</u> <u>Weight Training - Basic</u> <u>Exercise</u></p> <p><u>Community:</u></p>	<p><u>CLASSROOM</u> (Continued)</p> <p>in physical education or a partial episode used just as a warmup activity with your regular daily program.</p>

Environmental:		Integrated with:	
CONCEPT NO.	6 - Resources	SUBJECT	Physical Education
ORIENTATION	Bowling	TOPIC/UNIT	Bowling
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive: List the equipment needed for bowling, along with the natural resources required for the sport. Explain several ways in which the sport of bowling is helpful in maintaining the physical and psychological well-being of a person.		In-Class: A. Class discussion on natural resources and their relationship to bowling. 1. Pins - plastic, wood 2. Balls - different types. 3. Alleys - types of wood. 4. Effect of alley dressings and humidity on the alleys and the ball action. B. Trip to bowling alley. 1. Students will list the equipment and its resource. 2. Students will bowl three games. This unit could be utilized as a supplement to your bowling unit.	Outside or Community: A. Bowling at local lanes. B. Have bowling alley manager discuss the importance of controlled conditions to keep the bowling game at its best. C. Organize a school bowling league.
Affective: Value bowling as a leisure time activity by listing it as a worthwhile use of his leisure time.			
Skills Used: 1. Discussion. 2. Research. 3. Bowling techniques.			

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>Physical Education Activities Handbook</u>, Stanley and Waglow, Allyn and Bacon, Boston, 1968 pp. 197-203</p> <p><u>Basic Skills in Sports</u>, Armbruster, Irwin and Masker, C.V., 1963, pp. 58-66</p> <p><u>Audio-Visual:</u></p> <p>Contact AMF or Brunswick sporting companies for films.</p> <p><u>Community:</u></p>	

Environmental:

Integrated with:

CONCEPT NO. 7 - Land Use

SUBJECT Physical Education

ORIENTATION Recreational Facilities

TOPIC/UNIT Skiing

BEHAVIORAL OBJECTIVES

STUDENT-CENTERED LEARNING ACTIVITIES

Cognitive:

In-Class:

Outside or Community:

Indicate on a map the ski areas located within the state.

Demonstrate limited proficiency in skiing skills listed in "C 2-5" in inclass activities.

Describe ski areas in relationship to population centers, transportation, using a map.

Affective:

Promote ski area use as a way of utilizing leisure time.

A. Student project: Map out the ski areas in the state. Sources of information could be local travel information center or brochure from various ski hills throughout the state.

A. Ski hill manager to speak on ski area development.

B. Followup discussion:

B. Ski outing.

1. Growth of skiing and why this growth has taken place.

C. Ski patrol person to speak on importance of conditioning and be aware of hazards that are present on many hills.

2. The number of areas and how they relate to population centers.

D. Check ski hill in spring and recommend erosion controls, if there is a problem.

3. What has skiing done for the economy of the area.

4. How has the skiing affected the surrounding environment, the slope itself, rest areas, litter, erosion.

C. Conditioning and introduction to skills.

1. Exercises to develop legs, both calf and thigh muscles. Do not use deep knee bends.

Skills Used:

1. Skiing.

(Continued)

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u> Vacation and Travel Service, P. O. Box 450, Madison, WI 53701 <u>Everybody's Ecology: A Field Guide to Pleasure in the Out- of-Doors, Clay Schoenfeld,</u> <u>ICE RMC, 100 Sc</u></p> <p><u>Audio-Visual:</u></p> <p><u>Films:</u> <u>Ski Time in the Rockies, BAVI</u> <u>Winter in Ontario, BAVI</u> <u>Harmony, ICE RMC, Film #340</u></p> <p><u>Kits:</u> <u>Ecology, ICE RMC, KT 4</u> <u>Ecology, ICE RMC, KT 24</u></p> <p><u>Game:</u> <u>Ecology; The Game of Man and</u> <u>Nature, ICE RMC, SG 2</u></p> <p><u>Community:</u></p>	<p><u>CLASSROOM (Continued)</u></p> <ol style="list-style-type: none"> 2. How to approach rope tow and how to get on. 3. How to approach chair lift and how to get off. 4. How to snow plow. 5. How to traverse the hill.

Environmental: CONCEPT NO. 9 - Management ORIENTATION Skiing		Integrated with: SUBJECT Physical Education TOPIC/UNIT Ski Conditions	
BEHAVIORAL OBJECTIVES Cognitive: Demonstrate several exercises and explain the purpose of each exercise in skiing conditioning.		STUDENT-CENTERED LEARNING ACTIVITIES	
Affective: Desire to use skiing as a form of leisure time activity and a means of seeing the outdoors.		In-Class: This would be a good leadup to your unit on skiing. A. Exercises: 1. <u>Stride jump.</u> Feet together, hands on hips, jump off the ground. Land with legs spread in a long stride. Repeat quickly. Alternate right and left leg forward.	Outside or Community: A. Have a ski expert from the local ski club give a demonstration on exercises and how they are necessary or applied to the movements in actual skiing.
Skills Used: 1. Development of exercise skills.		2. <u>Toe touch.</u> From waistline raise arms overhead, bend trunk forward and down, knees straight, touch fingers to the floor or as far down as possible. If very flexible, student may reach back between the legs. 3. <u>Trunk twist.</u> Place feet about shoulder distance apart flat on the ground, hands out to the side. Twist trunk slowly as far as possible to right, then lift developing a swinging motion.	

(Continued)

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>Here is Your Hobby - Skiing,</u> <u>William Foss.</u></p> <p><u>Audio-Visual:</u></p> <p><u>Films:</u> <u>Skiing: Beginning Movements,</u> <u>BAVI</u> <u>Skiing, the Beginner, BAVI</u></p> <p><u>Community:</u></p> <p>Any family member who skis could contribute to discussion Take tour of any ski area to learn use and safety features of the different areas of a ski hill.</p>	<p><u>CLASSROOM (Continued)</u></p> <ol style="list-style-type: none"> 4. <u>Arm Rotation.</u> Arms out to sides horizontally begin with <u>small circles</u> ending with <u>large circles</u>. Do ten forward and ten backward. 5. <u>Pushups.</u> Ten. 6. <u>Ski sitting.</u> Place back flat against a wall so the <u>thighs</u> are parallel to the floor. Remain in this position for as long as possible. A progressively longer period of time should be withstood. 7. <u>Rope skipping.</u> Alternate slow and fast skipping for as long as possible. Work up to five minutes of continuous skipping. 8. <u>Bongs board.</u> Place a 3" diameter log about 6"-8" long under a 1' square board. Place flat board on round log. Shift weight from one leg to the other to get a rolling action. As the person progresses, try squatting position.

Environmental:

Integrated with:

CONCEPT NO. 10 - Economic Planning

SUBJECT Health Education

ORIENTATION Drugs

TOPIC/UNIT Health Education

BEHAVIORAL OBJECTIVES

Cognitive:

Describe characteristics of drugs.

Explain the short and long-term effects on the human body for each drug listed.

STUDENT-CENTERED LEARNING ACTIVITIES

In-Class:

Affective:
Conscious of immediate effects of drugs used improperly and becomes aware of the long term social, psychological and physical consequences which may arise from the continued use of non-prescribed drugs.

Outside or Community:

- A. Police officer speaking on drugs.
- B. M.D. - "Health and Drugs".
- C. George Howlett, Project I-C-E office.
- D. Athletic trainer.
- E. Comparison #1. Game warden brought in making point to show effects of pollutants on animals and other wildlife. Drugs and their effects on the body.

Skills Used:

- 1. Ability to recognize faulty motivational devices (drugs).
- 2. Able to appraise or evaluate drugs and their consequences in personal experiences.

- A. Teacher brings in pertinent facts, interviews and stories from newspapers, JOHNER (professional journals) to serve as an introduction. Students are urged to do research on their own and share with teachers and students.
- B. Application to Concept #10. Human body comparable to environment. Applications of methods used for short term gains on the land--also on the body.
- C. Panel discussions arranged by teacher but only students taking part. Charts constructed applications of particular drugs and their immediate and possible long-term effects.
 - 1. Drugs for different sports.
 - 2. Social drugs.
 - a. Tobacco.
 - b. Alcohol.
 - c. Barbituates.
 - d. Amphetamines

(Continued)

SUGGESTED RESOURCES

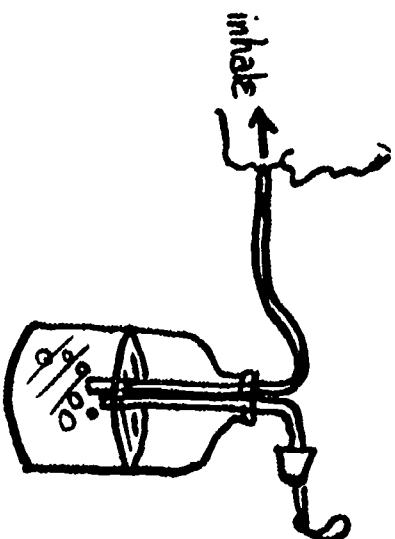
Publications:

JOHNER (Journal of Health,
Physical Education, Recreation).
AAHPER (American Association of
Health, Physical Education,
Recreation)

CONTINUED OR ADDED LEARNING ACTIVITIES

CLASSROOM (Continued)

- e. Hallucinogens.
- f. Narcotics.
- 3. Physiological problems:
 - a. Heart.
 - b. Lungs.
 - c. Liver.
- D. In-class experiment with tobacco. Set up an artificial smoking machine - use gallon glass jar, rubber and glass tubing and one cigarette.

Audio-Visual:Films:

Drugs: Facts Everyone Needs To
Know, BAVI
Drugs and the Nervous System,
BAVI
High Drugs and You, BAVI

Community:

Environmental:		Integrated with:	
CONCEPT NO. <u>4 - Air</u>		SUBJECT <u>Health and Physical Education</u>	
ORIENTATION <u>Pollution</u>		TOPIC/UNIT <u>Bicycling</u>	
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive:		In-Class:	Outside or Community:
Describe several benefits of bicycling for physical and health reasons.		A. Bike safety. 1. Rules of the road. a. Signals. b. Where to ride.	A. Have a school biking day or week in which everyone comes to school on his bicycle.
Compare bicycling with the automobile, bus and train as a mode of transportation.		B. Bike trails. 1. Locations (consult state DNR). 2. Benefits of trails.	B. Have a town bicycle day or week where everyone rides a bike to their destination.
a. Costs.		C. Benefits of biking. 1. Physically. a. Cardiovascular. b. Conditioning. c. Leisure time activity.	C. Interested students could work on course for elementary students to they could become familiar with bicycling.
b. Speed.		2. Clean air. a. Use of small amount of natural resources.	D. Organize bike club and bike patrol for your school.
c. Effect on environment.		3. Getting closer to nature. a. Try going slower; you can see nature. b. Breathing fresh air. c. Feeling the sun.	E. Bike rodeos. F. Bike trips. G. Bike trips with back-packing coordinated.
Affective:			
Demonstrate awareness of nature and their environment while bicycling by listing a number of things that he saw.			
Choose cycling as a mode of transportation over the automobile when needing to go a relatively short distance.			
Skills Used:			
1. Bicycle safety.			

(Continued)

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p><u>A Matter of Life and Breath - The Politics of Pollution</u>, Bernard Feder, ICE RMC, 110 Fe</p> <p><u>Conditions Affecting Life</u>, Minnesota Math and Science Teaching Project, ICE RMC, 110</p> <p><u>In Pollution</u>, J.C. MacBean and others, ICE RMC, 120 Ma</p> <p><u>Air Pollution Experiments for Junior and Senior High School Classes</u>, Donald Hunter and Henry Wohlers, ed., ICE RMC, 140 Hu</p> <p><u>Audio—Visual:</u></p> <p><u>Films:</u></p> <p>Harmony, ICE RMC, Film #340</p> <p>Noisy Landscape, ICE RMC, Film #170</p> <p><u>Bicycle Rules of the Road</u>, BAVI</p> <p><u>Bicycle Safety</u>, BAVI</p> <p><u>Once Upon a Bicycle</u>, BAVI</p> <p><u>You Can't Stop on a Dime</u>, BAVI</p> <p><u>Community:</u></p> <p>Local policeman on rules and regulations</p>	<p><u>CLASSROOM (Continued)</u></p> <p>E. Go on bicycle trip and emphasize the above.</p> <p>Suggestions: Alter to middle school or high school depending on age level and skills needed.</p>

Environmental:		Integrated with:	
CONCEPT NO.	8 - Values and Attitudes	SUBJECT	Health Education
ORIENTATION	Spectatoritis	TOPIC/UNIT	Spectator vs. Participation
BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive:		In-Class:	Outside or Community:
Infer that participating in an activity is more rewarding than being a spectator.		<p>Note: Americans are becoming less aware of their physical needs and more conscious of impressing people on where they are, how they are getting there and what they are doing when they get there. A healthy person does not remain in that state by only watching but rather by acting.</p> <p>A. Points of discussion.</p> <ol style="list-style-type: none"> 1. Is the American person active enough? <ol style="list-style-type: none"> a. Spectatoritis. b. TV. c. Drinking. d. Automotive society. 2. How can we get Americans more active? <ol style="list-style-type: none"> a. Talk of intramurals. b. Talk of recreation departments. c. Talk of more family and neighborhood games. <p>B. Have students construct games or think of activities which will not cost money. (Continued)</p>	<p>A. Recreation director talk on what recreation is, who it is for, and how this can be applied to local level.</p> <p>B. After designing games, students should select one game and actively participate.</p> <ol style="list-style-type: none"> 1. Cleaning up litter around school. 2. Clean up park area. 3. Become involved with DNR in forest or river projects.
Affective:			
Participate in a discussion and project illustrating that America is a materialistic society, needing impressive gadgets, and this type of living is not necessary.			
Refrain from purchasing gadgets or labor-saving devices that will reduce this activity and exercise.			
Skills Used:			

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p>See Reader's Guide:</p> <ul style="list-style-type: none"> a. Sports Illustrated. b. AAHPER. c. JOHPER. <p>Check title file in library on spectator.</p>	<p><u>CLASSROOM (Continued)</u></p> <p>C. Have students construct games which will not use natural resources.</p>
<p><u>Audio-Visual:</u></p>	
<p><u>Community:</u></p>	

Environmental:

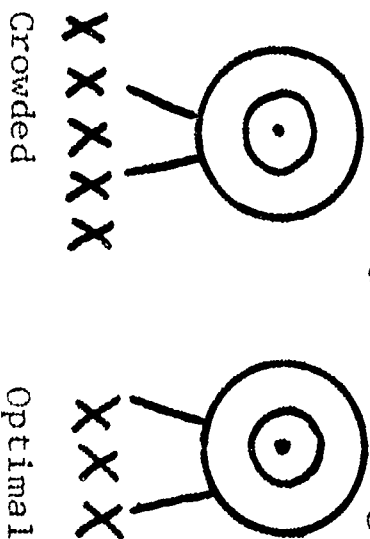
Integrated with:

CONCEPT NO. 3 - Carrying Capacity

SUBJECT Physical Education

ORIENTATION Safety

TOPIC/UNIT Archery

BEHAVIORAL OBJECTIVES		STUDENT-CENTERED LEARNING ACTIVITIES	
Cognitive: List conditions necessary for efficiency and safety on an archery range. Explain the need for safety on the archery range. Explain number of targets and number of archers on an archery range are similar to carrying capacity of a land area.	In-Class: Allow the students an opportunity to experience crowded conditions but return to a practical course for safety. A. Introduction. 1. Movie, <u>Archery</u> . 2. <u>Filmstrips</u> . 3. Speaker on archery. B. Organization. 1. Groups. a. Small (2-3). b. Large (5-6). Note: Show contrast relationship between efficient conditions and crowded conditions - safety is essential. C. Activity. 1. Target shooting.	Outside or Community: A. Bow hunters clinic. B. Movies. C. YMCA work. D. City recreation department. E. Interested parent.	
Affective: Appreciate the freedom of movement and the safety of an ideal range. Praise safety practices followed by others on the range. Practice safety procedures when not at the archery range.			
Skills Used: 1. Eye-hand coordination. 2. Balance. 3. Visual perception. 4. Concentration.	 Crowded Optimal		

(Continued)

SUGGESTED RESOURCES	CONTINUED OR ADDED LEARNING ACTIVITIES
<p><u>Publications:</u></p> <p>Many books by George Bear. Archery, Jean A. Barrett Archery, A Planning Guide For Archery, <u>Group Instruction</u>, c/o AAHPER Publications Sales, 1201 - 16th Street, N.W., Washington, D.C. 20036</p> <p><u>Audio-Visual:</u></p> <p>Film: <u>Archery Fundamentals</u>, BAVI</p> <p><u>Community:</u></p> <p>Local archery group could give shooting demonstration</p>	<p><u>CLASSROOM (Continued)</u></p> <p>D. Additional activities.</p> <ol style="list-style-type: none"> 1. Practice range. 2. Clout shooting. <p>Note: If possible try to shoot into a hill. Another way to avoid congestion is with the use of a semi-circle.</p>